



**PATENT**

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND  
INTERFERENCES**

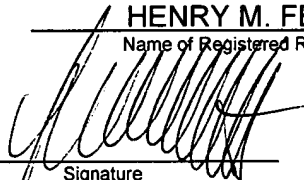
Docket No.: FICHTNER

In re Application of:	)
SIEGFRIED FICHTNER et al.	) Examiner: Mullins, Burton S
Appl. No.: 10/789,411	) Group Art Unit: 2834
Filed: February 27, 2004	)
For: ELECTRIC MACHINE WITH A LAMINATED ROTOR CORE	)

**BRIEF OF APPEAL**

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

S I R:

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450", on <b>November 17, 2005</b> . (Date)	
HENRY M. FEIEREISEN Name of Registered Representative	
 Signature	11-17-2005 Date of Signature

This is an appeal from the final rejection of claims 1 and 15 by the Primary Examiner. The Brief is being filed under the provisions of 37 C.F.R. §41.37. A check in the amount of \$500.00 to cover the requisite fee set forth in 37 C.F.R. §41.20(b)(2) is attached.

The Commissioner is hereby authorized to charge fees which may be required, or credit any overpayment to Deposit Account No. 06-0502.

### **(1) REAL PARTY IN INTEREST**

The above-referenced patent application has been assigned to Siemens Aktiengesellschaft, having a place of business at Munich, Germany, the real party in interest by virtue of an assignment recorded on June 14, 2004 at reel 015463, frame 0341.

### **(2) RELATED APPEALS AND INTERFERENCES**

There are no and there have been no related appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

### **(3) STATUS OF CLAIMS**

The following claims are in the proceeding:

Claims 4-13 are allowed.

Claims 2, 3 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Claims 1 and 15 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. No. 2,421,115 to Carlson.

#### **(4) STATUS OF AMENDMENTS**

No amendment under 37 C.F.R §1.116 after issuance of the final rejection has been filed.

#### **(5) SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention refers to an electric machine having a rotor core (3) which is mounted on a shaft (4) and includes a stack of laminations (5). A plate (1e), shown in Figs. 9 to 11, is attached to an end surface of the rotor core, to allow axial deflection of the laminations (paragraph [0038], lines 3, 4). As a result, attachment of the rotor core on the shaft is facilitated as an undesired seizing (paragraph [0004]) is prevented. Figs. 10 and 11 show the plate to have a planar outer surface which is distal to the rotor core and is sized to extend to the area of the shaft.

#### **(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Issue 1-Whether claims 1 and 15 are patentable under 35 U.S.C. §102(b) over Carlson?

## **(7) ARGUMENT**

The Carlson reference describes a rotor core which includes a stack of laminations (11) and is mounted on a shaft. The rotor core is located between fiber discs (12), with washers (13, 14) holding the rotor core and the fiber discs in place by arranging the washers against the outer sides of the respective fiber discs (col. 2, lines 12-19).

It is well established that under 35 U.S.C. §102, anticipation requires that each and every element of the claimed invention be disclosed in the prior art. Claim 1 on appeal has i.a. the following claim limitations:

- a) the plate is attached to an end surface of the rotor core;
- b) the plate is constructed to allow axial deflection of the laminations,
- c) the plate has a rotor core distal planar outer surface,
- d) the plate extends to an area of the shaft.

The Examiner equates the washers (13, 14) in Carlson to the plate (1e) of the present invention. These washers differ from the plate however in at least three of the afore-stated four features, namely claim limitations a), b) and d).

With respect to claim limitation a), the washers are not attached to the end surface of the rotor core but are placed against the fiber discs.

With respect to claim limitation d), the washers are sized to not only rest against the outer shaft surface but in fact are caused to dig into the shaft. In contrast thereto, claim 1 sets forth that the plate extends to an area of the shaft. In other words, the plate can be sized to extend shy of the outer shaft surface, and

not necessarily needs to be sized to bear upon the outer shaft surface, although such configuration is conceivable, as set forth in dependent claim 15.

With respect to claim limitation b), appellant notes as follows: As submitted above, attachment of the rotor core upon the rotor shaft has been accompanied previously by the problem of seizing. The washers in Carlson, however, are designed expressly to dig into the shaft (col. 3, lines 1-6). Not only differ these washers in their axial extension compared to the plate of the invention but the washers do not allow an axial deflection of the laminations. In fact, the provision of an axial deflection is neither intended nor desired because the washers are attached to the shaft after the rotor core has been placed upon the shaft to secure the rotor core in place. Thus, the washers do not constitute an actual part of the rotor core as it is placed upon the rotor shaft.

The Examiner referred in this regard to the passage in col. 3, lines 6-10, which describes that the laminations have a tendency to spring apart, when an applied pressure is released. Therefore, the Examiner concluded that the washers allow axial deflection. This interpretation is ill-advised. The Examiner mistakenly reads this passage in isolation and divorced from the remainder of the specification. When reading this passage in the light of the specification, the interpretation submitted by the Examiner cannot stand for the following reasons. As described immediately following this passage, Carlson notes as follows:

*However, this force merely causes the washers to try to dig more into the shaft but cannot move the washers away from one another.*

Clearly, the washers therefore do not allow an axial deflection of the laminations, even though the laminations may want to deflect in this way. Thus, the washers are designed, in fact, to prevent the axial deflection. In other words, the washers operate in the exact opposite way as the plate of the invention.

With respect to claim limitation c), appellant notes that the washers have a concavo-convex configuration (col. 2, lines 23, 24) and are flattened only during attachment onto the shaft to secure the rotor core in place, as they dig into the shaft (col. 3, lines 1, 2). Thus, while the washers may be flat on the rotor core distal outer surface after their installation, the washers per se have a curved configuration.

For the reasons set forth above, it is applicant's contention that Carlson neither teaches nor suggests the features of the present invention, as recited in claim 1 so that the rejection of claim 1 should be reversed.

As for the rejection of claim 15, this claim depends on claim 1, shares its presumably allowable features, and therefore it is respectfully submitted that the rejection of claim 15 should also be reversed.

It is therefore respectfully submitted that the rejection of claims 1 and 15 under 35 U.S.C. §102(b) should be reversed.

## **(8) CONCLUSION**

Appellant has invented a novel end plate for placement against the laminations of a rotor core, with the plate constructed to allow an axial deflection of

the lamination to address prior art problem relating to seizing when attaching the rotor core to the shaft.

The applied prior art does neither teach nor suggest the essential features as recited in claim 1 of the present invention.

For the above stated reasons, it is respectfully submitted that the rejection of the claims 1 and 15 issued by the examiner on the references should be reversed.

Respectfully submitted,

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**(9) CLAIMS APPENDIX**

1. An electric machine, comprising  
a shaft; and  
a rotor core mounted onto the shaft and formed of a plurality of stacked laminations, said rotor core having opposite end surfaces for attachment of a plate in such a manner as to allow an axial deflection of the laminations in the area of the plate, said plate having a rotor core distal planar outer surface and extending to an area of the shaft.
15. The electric machine of claim 1, wherein the plate has an inner diameter so as to bear upon an outer diameter of the shaft.



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**(10) EVIDENCE APPENDIX**

NONE

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**(11) RELATED PROCEEDINGS APPENDIX**

NONE